

Claim Rejections - 35 U.S.C. § 103

A. Claims 58, 59, 62, 63 and 68-70 are rejected by the Examiner under 35 U.S.C. § 103 as being obvious over Jones et al. (U.S. Patent No. 4,158,656) in view of Pusateri et al. (U.S. Patent No. 5,882,646) and Cho et al. (WO 94/19948). The Examiner asserts that Jones et al. disclose a method for extracting glucosinolates; however, Jones et al. does not disclose that the isolated glucosinolates are added to food. The Examiner asserts that since Pusateri et al. discloses that brassica vegetables contain glucosinolates which are helpful in fighting disease and Cho et al. discloses that isothiocyanates isolated from Brassica are known to detoxify cracinogens, it would have been obvious for a person of ordinary skill in the art to modify the method of Jones et al. by adding the isolated glucosinolates to food products. Applicants respectfully disagree with the Examiner and request reconsideration and withdrawal of the rejection.

A proper rejection for obviousness under §103 requires consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition, or device, or carry out the claimed process and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure. [emphasis added] *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438 (Fed. Cir. 1991).

In the pending case, the Examiner has failed to establish a *prima facie* case of obviousness because neither of the above recited factors are met by the teachings of Jones et al. in view of Pusateri et al. and Cho et al. This is because the primary reference that the Examiner is applying, Jones et al., teaches away from the presently claimed method. The present specification teaches that most of the Phase 2 inducer potential of crucifer plants is due to their content of isothiocyanates and their biogenic precursors, glucosinolates. See page 15, lines 3-6. Thus, the present method is directed to recovering glucosinolates and isothiocyanates and adding these compounds to food. In contrast, in column 1, lines 7-13 of Jones et al., it

states that “certain oilseeds...contain thioglucosides (glucosinolates) which, by means of endogenic enzymes, e.g. myrosinases, are split into the deleterious substances isothiocyanates and/or oxazolidinethiones, and glucose and bisulphate.” In column 3, lines 40-44, Jones et al. states “[t]he glucosinolates contained in rapeseed are, as is well known, hydrolyzed by myrosinase under the appropriate conditions to isothiocyanates, nitriles and oxazolidinethiones some of which are known to cause goiter.” Jones et al. also states at column 3, lines 48-53 that “it is essential for food use, to remove the glucosinolates and those other factors that can cause unattractive flavor and coloration and decreased nutritive value of foods.” As such, Jones et al. explicitly teaches away from adding glucosinolates to food products. Therefore, Jones et al. teaches away from the present invention.

Applicants remind the Examiner that it is improper to take individual teachings from one reference out of context (Jones et al.) and to combine those individual teachings with teachings from other references (Pusateri et al. and Cho et al.) to make an obviousness rejection. Instead, the Examiner must consider Jones et al. in its entirety. As discussed above, Jones et al. explicitly teaches removing glucosinolates from food because of their deleterious properties, such as decreased nutritive value and unattractive flavor. Because Jones et al. teaches away from adding glucosinolates to food, the prior art would not have suggested to those of ordinary skill in the art that they should modify the Jones et al. method by adding the isolated glucosinolates to food products, as the Examiner alleges is suggested by Pusateri et al. and Cho et al. Additionally, because Jones et al. teaches away from adding glucosinolates to food, those of ordinary skill would not have a reasonable expectation of success in combining the teachings of Jones et al. with the teachings of Pusateri et al. and Cho et al.

B. Claims 58, 59, 60, 63, and 68-70 re rejected by the Examiner under 35 U.S.C. § 103 as being obvious over Anjou et al. (U.S. Patent No. 4,083,836) in view of Pusateri et al. (U.S. Patent No. 5,882,646) and Cho et al. (WO 94/19948). The Examiner asserts that Anjou et al. teach a method for extracting or leaching glucosinolates from seed material; however, Anjou et al. does not disclose that the isolated glucosinolates are added to food. The Examiner asserts that since Pusateri et al. discloses that brassica vegetables contain glucosinolates which are helpful in fighting disease and Cho et al. discloses that

isothiocyanates isolated from Brassica are known to detoxify cracinogens, it would have been obvious for a person of ordinary skill in the art to modify the method of Anjou et al. by adding the isolated glucosinolates to food products. Applicants respectfully disagree with the Examiner and request reconsideration and withdrawal of the rejection.

A proper rejection for obviousness under §103 requires consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition, or device, or carry out the claimed process and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure. [emphasis added] *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438 (Fed. Cir. 1991).

In the pending case, the Examiner has failed to establish a *prima facie* case of obviousness because neither of the above recited factors are met by the teachings of Anjou et al. in view of Pusateri et al. and Cho et al. This is because, as discussed above with respect to Jones et al., the primary reference that the Examiner is applying, Anjou et al., teaches away from the presently claimed method. Anjou et al. emphasizes the necessity of removing glucosinolates from seeds of Brassica species in order to produce a protein concentrate “which is non-toxic, has an acceptable light color, a neutral and mild flavor and a high nutritional value and which thus is well suited for human consumption.” See column 1, lines 8-11. In column 1, lines 21-28, Anjou et al. discusses the drawbacks of prior art oil extractions which contained “glucosinolates, which could be split into deleterious compounds with pungent flavor.” Anjou et al. therefore teaches away from the present method by emphasizing the necessity of removing glucosinolates from Brassica seeds in order to produce a non-toxic protein concentrate that is suited for human consumption.

Applicants remind the Examiner that is it improper to take individual teachings from one reference out of context (Anjou et al.) and to combine those individual teachings with teachings from other references (Pusateri et al. and Cho et al.) to make an obviousness rejection.

Instead, the Examiner must consider Anjou et al. in its entirety. As discussed above, Anjou et al. explicitly teaches removing glucosinolates from food because of their deleterious properties, such as being unsuitable for human consumption and having an unattractive flavor. Because Anjou et al. teaches away from adding glucosinolates to food, the prior art would not have suggested to those of ordinary skill in the art that they should modify the Anjou et al. method by adding the isolated glucosinolates to food products, as the Examiner alleges is suggested by Pusateri et al. and Cho et al. Additionally, because Anjou et al. teaches away from adding glucosinolates to food, those of ordinary skill would not have a reasonable expectation of success in combining the teachings of Anjou et al. with the teachings of Pusateri et al. and Cho et al.

CONCLUSION

As the above-presented amendments and remarks address and overcome all of the rejections presented by the Examiner, withdrawal of the rejections and allowance of the claims are respectfully requested.

Applicants believe the application is in condition for allowance. However, in order to maintain pendency of the application, Applicants are filing a Notice of Appeal.

If the Examiner has any questions concerning this application, he or she is requested to contact the undersigned.

Respectfully submitted,

Date

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By

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

53. (Amended) The method of claim 52, wherein said plant tissue is selected from the group consisting of cruciferous sprouts measured after 3 days of growth, cruciferous seeds, plants [or] and plant parts.